Landowners Guide to Controlling Knotweed

Knotweed is an invasive herbaceous perennial, most likely introduced as a garden ornamental, but now found growing along stream banks, in moist waste places, neglected gardens, roadsides and railroad right-of-ways. Knotweeds can reproduce by rhizome, seed, root segments, and stem cuttings. Knotweed can completely clog small waterways, displace and outcompete native vegetation causing increased streambank erosion and lowering the quality of riparian habitat for fish and wildlife.

Identification.

There are four similar species of knotweed in the Pacific Northwest, but all are considered *noxious* in Washington State. Knotweed is fast growing, forming dense thickets and reaching heights of up to 12 feet. The leaves are alternate and either triangular or heart-shaped. Stems are slender and red when young; but turn green and take on a bamboo appearance as they mature. In late summer, knotweed will produce showy clusters of white flowers near the terminal end of the stems.

Chemical Control. Once established, knotweed can be very difficult to control and will typically take a number of years of repeated control efforts and monitoring. The use of herbicide is the most effective option for knotweed control, but manual methods may be used successfully for smaller infestations.

Herbicides with glyphosate as the active ingredient is the best choice for small landowners. Glyphosate goes by many brand names (Roundup) and formulations can vary between brands, be sure to check with and adhere to the product label instructions. Glyphosate is a non-selective herbicide that can injure other desirable plants. Other chemical options include dicamba, imazapyr, triclopyr ester, triclopyr amine, or triclopyr +2,4-D ester and may be preferred by contractors & licensed applicators.

When using any herbicide, verify the site is listed on the label and all safety protocols are followed, including the use of proper protective gear.

Timing is everything. The best time to chemically control knotweed in Washington State is August through early October (when the plant is in the flower bud stage). However, for foliar treatment, the plants may be over 10 feet tall by then and hard to spray without significant chemical drift. If this is a concern, plants can be bent or cut in June or July and will regrow to approximately 4 feet in about 6-8 weeks. Application should also be done when pollinator activity is low. Early in the day or waiting until the evening when temperatures have cooled is the best way to avoid harming beneficial insects.

Foliar Applications of Glyphosate.

Prepare a 2-5% solution of glyphosate and apply at approximately 1 gallon per 75-1000 sqft. Spray enough herbicide to uniformly wet the leaves, but not dripping. Apply to the knotweed plants and not on the surrounding plants or soil. **Use this method for late summer and fall applications – spring applications are not likely to be effective**. Repeat spot applications to re-growth will be necessary in subsequent seasons but to increasingly fewer plants. Follow label directions for mixing product to application strength.

Wiper Applications of Glyphosate

Prepare a 33% solution of glyphosate by mixing 1 part glyphosate to 2 parts water. Apply the solution to all surfaces of the knotweed, including the stem, using a foam paint brush. For large plants, cut plant down to a height of 3 ft and apply the solution to all surfaces, stems, and inside the stem cavity.

Aquatic and Streamside Applications

Knotweed often grows in areas of flowing water. Herbicide use within 60 feet of a water body requires the use of an herbicide formulated for aquatic settings and is restricted for use to licensed applicators only. The use of terrestrial herbicides like Roundup in an aquatic setting are likely toxic to fish and other aquatic organisms and is considered an illegal application. Please contact the Noxious Weed Control Board for more information and treatment options.

Alternative Control Methods.

Light deprivation has proven effective in some cases. Stems are cut down to the ground and landscape fabric or multiple layers of cardboard are then laid over treatment areas at least 3 feet past the edge of the infestation. Periodic maintenance and repeat treatment is required.

Hand cutting, digging, or pulling are also alternative options but have very limited success and must be repeated every 2 weeks throughout the growing season.

One of the most common ways knotweed is spread is though improper disposal of plant material. Please keep plant material on site, allowing it to dry out or dispose of it at a solid waste transfer station.

Sources:
http://www.skamaniacounty.org/noxious-weeds/files/2019/05/Knotweeds-BMP_Final.pdf
https://www.nwcb.wa.gov/images/weeds/Knotweed-Control_Whatcom.pdf
https://www.nwcb.wa.gov/weeds/giant-knotweed
https://pnwhandbooks.org/weed/problem-weeds/knotweed-bohemian-polygonum-bohemicum-japanese-polygonum-cuspidatum-giant-polygonum-sachalinense

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